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ABSTRACT

The lack of communication between educators and employers concerning the characteristics of a successful worker is explored. The need for a stronger emphasis on positive affective work competencies (work values, habits, and attitudes) is demonstrated. The failure of many educators to help their students develop proper work habits and attitudes is discussed and the general unavailability of appropriate materials and training procedures is considered a factor in this regard. A summary of preliminary investigations conducted to identify, define, and measure various affective work competencies (AWC's) is given. The development of pilot affective learning modules and testing procedures is described, and the results are explained. Recommendations to improve the utilization of AWC's are outlined. (Author/AL)

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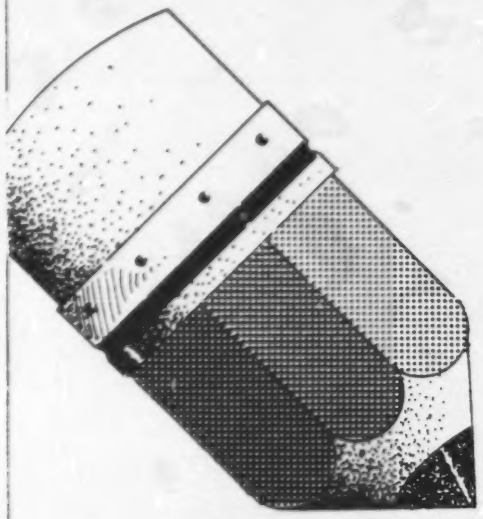

PRELIMINARY DEVELOPMENT OF AN AFFECTIVE WORK COMPETENCIES TESTING PROGRAM

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Introduction

There exists between educators and employers in American business and industry a lack of communication - a "knowledge gap" concerning the kind of successful worker desired by employers and the type of worker to be trained by educators to fill employee positions.

In his article for the American Vocational Journal, Johnson stated:

> Businessmen find that students who have just finished their schooling and are starting on their first jobs have no idea what is expected of them by their employers. They are startled to learn that they are expected to be on time and come to work every day. Often, when they meet the first frustration, or when they are expected to put out a hard day's work, they quit rather than see it through (Johnson, 1971, p. 69).

Similarly, for a recent article reporting the dialogue between a shop teacher and industrial employer, the employer's response regarding employee attitudes was: "If you don't know how to read a blueprint, we can teach you that,...but how are we going to teach self-discipline, initiative, and a willingness to work?" (Ellerback, 1977, p. 31).

Affective Work Competencies (work values, habits and attitudes), have become primary considerations for workers at all stages of their employment: entering the job market, sustaining employment, and gaining job promotions. In fact, recent research reveals that, of the persons losing their jobs or failing to be promoted, nearly 87% had improper work habits and attitudes rather than insufficient job skills or knowledge (Beach, 1979).

There is also another major consideration for promoting positive work values, habits and attitudes. With advancing technology, the occupational structure of our society is changing from that of producing goods to that of providing services. As a result, machines are completing many of the psychomotor activities once performed by the worker, and an increasing number of workers are providing services for other people or machines. With this occupational shift, many people are finding an earlier obsolescence of specific job skills or knowledge and a work environment where proper work values, habits and attitudes have become much more important for job success (Wilson, 1973).

And yet, given this changing nature of the work environment, many educators still concentrate the majority of their efforts to assist students in learning performance skills and cognitive information. They consider the acquisition of desirable work values, habits, and attitudes an incidental factor in the instructional program (Kazanas, 1978). This may be due to the fact that appropriate instructional materials and training procedures to help their students develop proper work habits and attitudes have been relatively unavailable.

Acknowledging the need for a stronger emphasis on desirable work competencies for students, and as a prerequisite for the preparation of instructional materials and teaching resources, several preliminary investigations have been conducted. These studies attempted to identify, define, and quantify various affective work competencies (Kazanas and Beach, 1978). Pilot affective learning modules and testing procedures have also been developed (Beach, 1980). The results of these studies were positive and clearly show that much more related research, investigation, and development should be encouraged.

Pertinent Previous Research

In order for educators to prepare instructional materials and lesson plans regarding affective work competencies, they must first know which worker characteristics are necessary or desirable. To meet this need, Phase I of a project funded by the Research Coordinating Unit within the Missouri State Department of Elementary and Secondary Education was designed to obtain information about the behavior and characteristics of working individuals.

Identifying the Affective Characteristics.

An initial goal of the previous project was to identify the work habits, work values, and work attitudes that are considered desirable and important by employers and educators. Computer services were utilized to search thousands of relevant articles, books, and research reports dealing with this subject. A thorough analysis of the resulting information revealed that 63 specific affective work competencies were described by employers and educators. Table I is a summary portion of the desirable affective work characteristics as compiled in this research. (Kazanas, 1979).

After the affective work competencies (AWC's) listed by industry were identified (Table I), they were clustered according to their common elements. Research-team members used definitions and interpretations to categorize each characteristic. This classification resulted in the 15 clusters listed in Table II.

TABLE I
AFFECTIVE WORK COMPETENCIES (AWC)
LISTED BY INDUSTRY AND EDUCATORS*

1. Punctual	22. Careful	43. Creative
2. Cooperative	23. Cheerful	44. Considerate
3. Capable	24. Enthusiastic	45. Speedy
4. Follows directions	25. Independent	46. Influence
5. Responsible	26. Quality of work	47. Orderly
6. Emotionally stable	27. Intelligent	48. Patient
7. Initiative	28. Personal appearance	49. Poise
8. Honest	29. Alert	50. Interested
9. Dependable	30. Devoted	51. Curious
10. Helpful	31. Recognition	52. Forceful
11. Loyal	32. Leadership potential	53. Active
12. Adaptable	33. Courteous	54. Aware
13. Efficient	34. Pleasant	55. Resourceful
14. Ambitious	35. Responsive	56. Appreciative
15. Quaslity of work	36. Personality	57. Perceptive
16. Dedicated	37. Endurance	58. Achievement
17. Reliable	38. Tolerance	59. Compensation
18. Accurate	39. Shyness	60. Security
19. Persevering	40. Tender-mindedness	61. Variety
20. Judgement	41. Overall job performance	62. Working conditions
21. Concentrating	42. Healthy	63. Friendly

*AWC 1 through 31 were listed by both industry and educators (common)
AWC 32 through 41 were listed only by industry and
AWC 42 through 63 were listed only by educators

TABLE II
CLUSTERED AFFECTIVE WORK COMPETENCIES

1. Ambitious
2. Cooperative/Helpful
3. Adaptable/Resourceful
4. Considerate/Courteous
5. Independent/Initiating
6. Accurate/Quality of Work
7. Careful/Alert/Perceptive
8. Pleasant/Friendly/Cheerful
9. Responsive/Follows Directions
10. Emotionally Stable/Judgemental/Poised
11. Persevering/Patient/Enduring/Tolerant
12. Neat/Orderly/Personal Appearance/Manner
13. Dependable/Punctual/Reliable/Responsible
14. Efficient/Quality of Work/Achieving/Speedy
15. Dedicated/Devoted/Honest/Loyal/Conscientious

Construct Validation of the AWCI

In 1978, nine-thousand AWCI's were printed and administered to students, teachers, supervisors, and workers throughout Missouri. Analysis of the resulting data yielded statistical reliability coefficients exceeding 0.97. In addition, items on the AWCI and their referent competency clusters were evaluated for content validity by a panel of employers, educators, psychologists and psychometricians. However, before major phases of research using the inventory could continue, more evaluation of the instrument itself was necessary.

In 1979, the Faculty Research Council (FRC) at Bowling Green State University funded an investigation regarding construct validation of the AWCI. For the first phase of the project, the AWCI and a criterion measure were administered to employees of selected businesses and industries in Northwest Ohio (Hauck, 1979). Peers and supervisors also completed instruments regarding the employees' work attitudes and behaviors.

Two improvements resulted. The first changed the format from a 5-item Likert Scale to a 7-item Likert Scale in an effort to improve the instrument's discrimination. In addition, reading specialists evaluated and modified sentence portions to more appropriately accommodate pre-baccalaureate workers and students.

The sequential validation phase regarding student AWCI scores and teacher evaluation of the student (in terms of work attitudes and behaviors) was integrated with the initial preparation of an affective competencies testing program recently funded by the Vocational Division within the Ohio State Department of Education.

Supervisor Rating Scale.

Although the Ohio Department of Education's early preference was to have AWC profiles measured for workers in 42 different occupations, budget limitations only allowed funding for the following eight areas: 1) horticulture, 2) secretarial, 3) general merchandising, 4) food service, 5) machine trades, 6) animal care, 7) data processing, and 8) auto mechanics.

To develop a profile for the affective characteristics of workers in each occupation, it was necessary to have supervisors identify their "better" employees. To facilitate this selection and data collection procedure, a "supervisory ranking form" was prepared (Pohl, 1980). This instrument was then utilized by research assistants as they administered "revised"[1] AWCI's to hundreds of workers in businesses and industries throughout Northwest Ohio.

[1]To accommodate anticipated reading levels of pre-baccalaureate workers (or students) and to provide greater item descrimination, earlier AWCI research suggestions were incorporated in a revision of the Affective Work Competencies Inventory.

Student Version of the AWCI

As preparation for this pilot testing program, the original AWCI was modified for use by students (Patey, 1980). In addition to increasing the range of possible responses and lowering the reading level of the criterion items, the referent for the behaviors was also changed.[2]

This new version of the AWCI was then administered to nearly 200 vocational students who were enrolled in the eight occupational training programs included in the project. Data processing was used to score the student responses; participants were then given confidential computer print-out (Competency/Evaluation Profiles) which enabled them to compare their affective work competencies with those of successful workers in the occupation for which they were preparing.

Feasibility of an Affective Work Competencies Testing Program.

To help administrators and instructors make decisions about utilizing Affective Competencies Testing, this pilot-project phase attempted to gather empirical evidence regarding the program's benefits and significance.

Descriptive information was gathered by having teachers, administrators and supervisors who participated in the program complete a seven-item rating sheet (Pecoraro, 1980). They circled numerals to represent their responses for each information statement: a "1" represented strong disagreement and a "6" meant strong agreement. The results are summarized in Table III.

[2]Except for the referent ("while I'm at work..." versus "while I'm working in the lab"), the inventories administered to employees were identical to the ones students received.

TABLE III
TEACHER RATING SHEET

INFORMATION STATEMENTS	REPONSE MEAN
1. The computer profile feedback information was helpful for students to identify their work habits and attitudes that need to be improved.	4.87
2. The inventory profiles could identify students who need help for acquiring proper work habits and attitudes.	5.25
3. The resultant computer profiles helped me identify work habits, values, and attitudes that should be emphasized in class.	4.87
4. The computer printouts increased student's awareness towards their area of occupational choice.	4.37
5. The students' profile information may be used by them as a guidance or placement tool.	4.12
6. I would like to continue using the ACTP with my classes.	5.0
7. I think the Affective Competencies Testing Program should be provided (implemented) on a regular basis for vocational schools throughout the state.	5.0

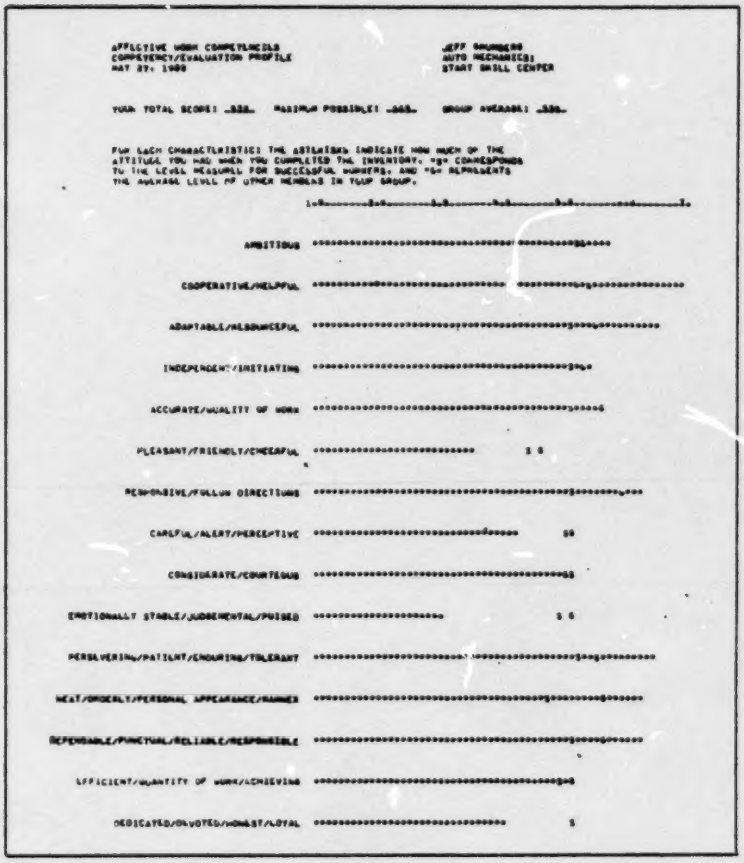

FIGURE 1

As revealed in Figure 1 above, relative affective characteristics for students in the auto mechanics class exceeded most of those measured for successful workers. For school administrators, such information about how their classes and students compare with workers could be desirable.

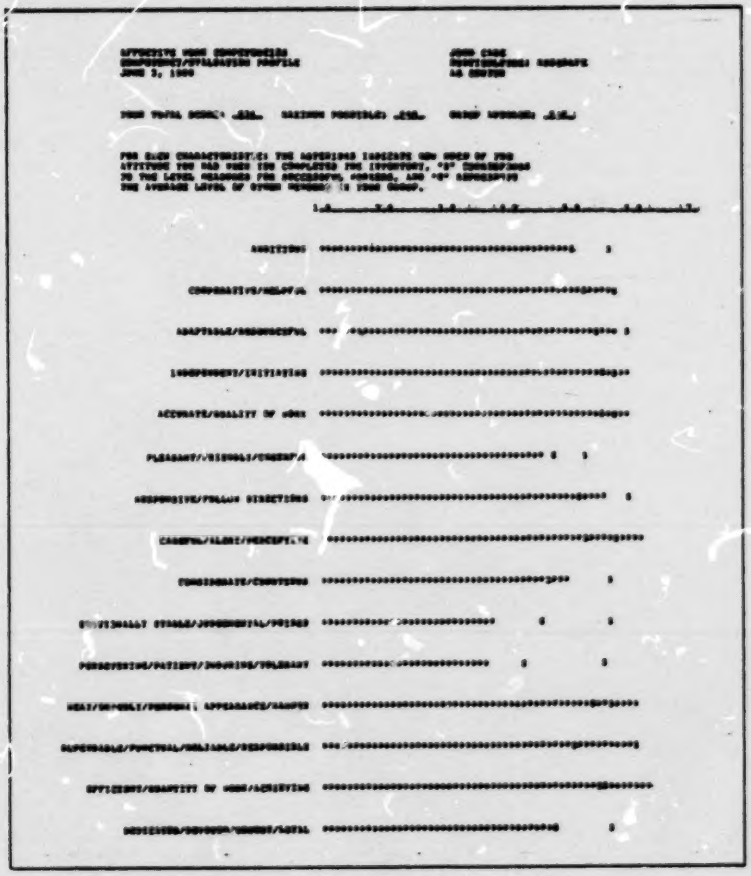

FIGURE 2

The results charted in Figure 2 show that, for the majority of the clusters measured, the student scored below a successful worker in his career area of horticulture. One-third of his scores fall below the class average indicated by "G".

The results of the AWC Inventory testing could be affected by many variables. The date in the school year when the test is administered is a factor. Therefore, the test has been designed to be re-taken several times during the school year to measure learning and improvement in the fifteen cluster areas.

SUMMARY AND RECOMMENDATIONS

Previous research has been conducted to identify and measure the work habits, attitudes, and values that have become important for occupational success. This information was then used as part of a pilot instructional system for economically disadvantaged youth. The results suggest that a program with individualized training modules, AWC testing and comprehensive evaluation feedback would enhance participants' affective work competencies.

During another investigation, vocational students received computer printouts that provided comprehensive feedback information about their inventory responses. By contrasting their own attitude profile with that of a successful worker (in the preferable occupation they had selected), the project's participants were able to identify specific affective characteristics that needed improvement. They were also able to judge whether or not the "match" with their selected occupation was realistic.

To provide enhanced implementation or generalizability, a self-scoring and profiling procedures manual was also prepared.

To further improve the Affective Competencies Testing Program, (ACTP) the following recommendations are suggested:

1. Although a self-scoring and profiling procedures manual has been prepared, it has not been tested to see whether or not it is practicable or effective (will it work?)

2. To provide increased opportunity for career guidance, the affective characteristics of successful workers in additional occupations should be measured (e.g. cosmetology, carpentry, diversified health, etc.)

3. After students have identified specific AWC's that need improvement, information/training modules should be available to help them become "aware" of desirable habits and behaviors and how to improve them.

Results from these previous investigations support the need for additional research efforts toward the preparation of instructional materials and teaching strategies that will help youth acquire desirable work values, habits, and attitudes

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